

## UNITED STATES DEPARTMENT OF COMMERCE

## **Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.	
08/964,518	11/05/97	ALVARREZ		R	T1-19177	
_		MM61/1222	$\neg$		EXAMINER	
WADE JAMES BRADY				WILLIAMS, A		
TEXAS INSTRL	IMENTS INCOM	RPORATED				
PATENT DEPAR	TMENT M S	219		ART UNIT	PAPER NUMBER	
<sup>o</sup> O BOX 6554	17			2811	· · · · · · · · · · · · · · · · · · ·	
DALLAS TX 75	265					

DATE MAILED: 12/22/98

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

	Application No. 5 /6 Applicant(s)  Applicant(s)  Applicant(s)				
Office Action Summary	Examiner # W 5///	ams	Group Art Unit		
The MAILING DATE of this communication appears	on the cover sheet b	eneath the co	orrespondence a	ddress	
Period for Response	1	2			
A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SE MAILING DATE OF THIS COMMUNICATION.	T TO EXPIRE	MONTI	H(S) FROM THE		
<ul> <li>Extensions of time may be available under the provisions of 37 CFR 1.1 from the mailing date of this communication.</li> <li>If the period for response specified above is less than thirty (30) days, a</li> <li>If NO period for response is specified above, such period shall, by defaulting to respond within the set or extended period for response will, by</li> </ul>	response within the statuto	ory minimum of the from the mailing	nirty (30) days will be date of this commu	considered timely.	
Status					
☐ Responsive to communication(s) filed on					
☐ This action is FINAL.					
<ul> <li>Since this application is in condition for allowance except to accordance with the practice under Ex parte Quayle, 1935</li> </ul>			the merits is clo	sed in	
Disposition of Claims					
Claim(s)	is/are p	is/are pending in the application.			
Of the above claim(s)					
□ Claim(s)	is/are a	is/are allowed.			
☑ Claim(s) / / / /		is/are r	ejected.		
□ Claim(s)		is/are o	bjected to.		
□ Claim(s)				or election	
Application Papers		require	ment.		
☐ See the attached Notice of Draftsperson's Patent Drawing	Review, PTO-948.				
☐ The proposed drawing correction, filed on	is 🗆 approved	☐ disapproved	d.		
☐ The drawing(s) filed on is/are objected	d to by the Examiner.				
☐ The specification is objected to by the Examiner.					
☐ The oath or declaration is objected to by the Examiner.					
Priority under 35 U.S.C. § 119 (a)-(d)					
<ul> <li>□ Acknowledgment is made of a claim for foreign priority und</li> <li>□ All □ Some* □ None of the CERTIFIED copies of the</li> <li>□ received.</li> </ul>	e priority documents ha	ave been			
<ul> <li>received in Application No. (Series Code/Serial Number)</li> <li>received in this national stage application from the International</li> </ul>			*		
*Certified copies not received:			·············		
Attachment(s)					
☐ Information Disclosure Statement(s), PTO-1449, Paper No(	s) 🗆 lı	nterview Sumn	nary, PTO-413		
Notice of References Cited, PTO-892	lotice of Inform	nal Patent Applica	ition, PTO-152		
Notice of Draftenemen's Potent Drawing Poview PTO.048	)than	oor			

Office Action Summary

\*U.S. GPO: 1997-417-381/62710

U. S. Patent and Trademark Office PTO-326 (Rev. 3-97)

Part of Paper No. \_\_\_\_\_\_

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Art Unit: 2811

Serial Number: 08/964518 Attorney's Docket #: T1-19177

Filing Date: 11/5/97;

Applicant: Alvarraz et al.

Examiner: Alexander Williams

Note: in claim 6, last line, a period --.- is needed at the need of the sentence. Also, in claim 10, line 3, "a" should be deleted and line 4, after "leads;" insert --and--.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 5 to 7 and 10 to 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Mosley et al. (U.S. Patent # 5,8246,950).

In claim 1, Mosley et al. (figures 1 to 17b) specifically figure 1, show a leadframe/stabilizer for use with semiconductor devices, comprising: a plurality of lead frame leads 105,103; a stabilizer 102b extending partially along the length of and on each side of said lead frame leads (see column 5, lines 33-42); and a die pad 102a mount integral with and forming a part of said stabilizer.

In claim 2, 7 and 12, Mosley et al.'s stabilizer is made of an insulating material.

In claim 5, Mosley et al.'s die pad 102a mount has a recess in one surface into which a semiconductor die is mounted.

In claim 6, Mosley et al. (figures 1 t 17b) specifically figure 1, show a leadframe/stabilizer for use with semiconductor devices, comprising: a plurality of lead frame leads 103,105; a

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stabilizer 102b extending partially along the length of and on each side of said lead frame leads (see column 5, lines 33-42); a die pad 102a mount integral with and forming a part of said stabilizer; and a (portion above 102a) recess in one surface of the die pad mount into which a semiconductor die is mount.

In claim 10, Mosley et al. (figures 1 t 17b) specifically figure 1, show a method for stabilizing the leads of a lead frame and providing a semiconductor die mount pad 102a, comprising the steps of: molding a stabilizer fingers 102b along part of the length and on each side of the lead frame leads 103,105; and molding a die pad integral with the stabilizer fingers (see column 5, lines 33-42).

In claim 11, Mosley et al.'s forming a recessed area in the die pad for mounting of a semiconductor die 101.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Suzuki et al. (U.S. Patent # 5,424,577).

In claim 1, Suzuki et al. (figures 1 to 13 and 21) specifically figures 6B and 7C, show a leadframe/stabilizer for use with semiconductor devices, comprising: a plurality of lead frame leads 110,114-117; a stabilizer 120-122 extending partially along the length of and on each side of said lead frame leads 122; and a die pad 112 mount integral with and forming a part of said stabilizer.

Claims 3, 4, 8, 9, 13 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable Mosley et al. (cited above) over in view of Kitahara (U.S. Patent # 5,568,363).

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Mosley et al. show the features of the claimed invention as detailed above, but fail to explicitly show the stabilizer is made of an ceramic or plastic material. However, Mosley et al. does discloses the stabilizer is a insulating material and can be made of material having properties the same or similar to a liquid crystal polymer (see column 4, lines 35-65).

Kitahara is cited for showing surface mount components.

Specifically, Kitahara discloses (figure 56) the stabilizer 181 is made of an ceramic material (see column 14, lines 54 to column 15, lines 67) for the purpose of providing a structure with enhance structural strength.

In claim 3, 8 and 13, use the combination the reference show it would be obvious to use the stabilizer made of an plastic material.

In claim 4, 9 and 14, the combination Kitahara's stabilizer 181 is made of a ceramic material.

Therefore, it would have been obvious to one of ordinary skill in the art to use Mosley et al.'s stabilizer material to modify Mosley et al.'s stabilizer material for the purpose of providing a structure with enhance structural strength.

The following references are cited as of interest to this application:

U. S. Patent # 5,723,899 is cited for showing a semiconductor lead frame having connection bar and guide rings.

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Field of Search	Date		
U.S. Class and subclass: 257/666,668,670,668,672,677,678,692,673	12/16/98		
Other Documentation: foreign patents and literature in 257/257/666,668,670,668,672,677,678,692,673	12/16/98		
Electronic data base(s): MAYA U.S. Patents	6/5/98 12/16/98		

Papers related to this application may be submitted to

Technology Center 2800 by facsimile transmission. Papers should

be faxed to Technology Center 2800 via the Technology Center 2800

Fax center located in Crystal Plaza 4-5B15. The faxing of such

papers must conform with the notice published in the Official

Gazette, 1096 OG 30 (November 15, 1989). The Technology Center

2800 Fax Center number is (703) 308-7722 or 24. Only Papers

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the GROUP 2800 FAX CENTER.

Any inquiry concerning this communication or any earlier communication from the examiner should be

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directed to **Examiner Alexander Williams** whose telephone number is (703) 308-4863.

Any inquiry of a general nature or relating to the status of this application should be directed to the *Technology Center 2800 receptionist* whose telephone number is (703) 308-0956.

December 17, 1998

Patent Examiner

Alexander O. Williams